Name:

## at1110paper_practice_test (v12)

1. Expand the following expression into standard form.

$$(3x - 8)(6x - 5)$$

$$18x^2 - 15x - 48x + 40$$

$$18x^2 - 63x + 40$$

2. Solve the equation.

$$(3x + 4)(7x - 6) = 0$$

$$x = \frac{-4}{3} \qquad x = \frac{6}{7}$$

3. Expand the following expression into standard form.

$$(4x + 5)(4x - 5)$$

$$16x^2 - 20x + 20x - 25$$

$$16x^2 - 25$$

4. Expand the following expression into standard form.

$$(8x + 5)^2$$

$$64x^2 + 40x + 40x + 25$$

$$64x^2 + 80x + 25$$

5. Factor the expression.
$$x^2 + 5x - 36$$

$$(x - 4)(x + 9)$$

6. Factor the expression.
$$25x^2 - 49$$

$$(5x + 7)(5x - 7)$$

7. Solve the equation with factoring by grouping.
$$24x^2 + 20x + 18x + 15 = 0$$

$$(4x + 3)(6x + 5) = 0$$
$$x = \frac{-3}{4} \qquad x = \frac{-5}{6}$$

8. Solve the equation.
$$12x^2 + 23x - 38 = 5x^2 + 4x - 2$$

$$7x^2 + 19x - 36 = 0$$
$$(7x - 9)(x + 4) = 0$$
$$x = \frac{9}{7} \qquad x = -4$$